Board of County Commissioners

Budget Discussion Item

Date of Meeting: June 14, 2005

Date Submitted: June 8, 2005

To: Honorable Chairman and Members of the Board

From: Parwez Alam, County Administrator
Kim Dressel, Management Services Director
Alan Rosenzweig, Director, Office of Management & Budget

Subject: Energy Performance Contract for County Facilities

Statement of Issue:
This discussion item seeks authorization to proceed with the development of an energy performance contract for County building facilities.

Background:
On April 26, 2005, the Board approved a request to cancel its workshop with Energy Systems Group (ESG), regarding the investment-grade energy audit and a proposed energy savings performance contract, which had been scheduled for May 10, 2005 (attachment 1). The request to cancel this workshop was made because the long-term savings of this project did not significantly exceed the associated costs. Additionally the contract was to include third party implementation, and a ten to twelve year outside financing arrangement. The April project proposal brought by ESG would only have resulted in a net savings of only $12,287, after twelve years of debt repayment, with a total project investment by the County of $6,571,450 (which included a $4,965,658 project cost and $1,605,792 debt service cost). The original proposal did not offer significant enough savings to the County to justify its costs.

Upon agreeing to cancel the original workshop, the Board also directed staff to bring back an agenda item to see if staff and representatives of ESG could arrive at a refined project proposal that could prove to be more fiscally sound to the County. Successive adjusted proposals received from ESG have consisted of a guaranteed net savings of $850,965, after twelve years of debt repayment, following a total project investment of $5,832,269 (which includes a $4,466,238 project cost and $1,366,031 debt service cost). The revised proposal will result in a guaranteed net savings of $836,678 more than the savings proposed in April. The refined proposal has been proven to be in the best interest of Leon County, and is hereby recommended to be further developed into the required performance agreement that is authorized by Florida Statute, and approved by the Board.

Accompanying this item are the current Energy Conservation Measure (ECM) selections, and 12-year Cash Flow Analysis Summary worksheets, as provided to the County by ESG are attached (Attachment #2). Also, a spreadsheet indicating the various cost reductions and saving increases, that have occurred through recent staff dealings with ESG (Attachment #3).

Analysis:
As can be seen from the contractor's proposal, the proposed project consists of 13 selected ECMs, out of a field of 37 total ECMs which have been technically reviewed by both ESG and County staff, over the past several months. These projects consist of the following:

Summary of Final Proposed Energy Control Measure Selections

I. Board of County Commission Projects:

Two projects at the Leon County Courthouse	$ 809,477
One project at the Bank of America property	$ 139,514
One combined central heating/cooling plant	$1,808,209
Two projects at all other outlying County facilities	$ 268,111
Six Total Projects	**$3,025,311**

II. Leon County Sheriff's Department Projects:

Four projects at the Leon County Jail	$1,280,817
Three projects at the Sheriff's Admin Facility	$ 160,109
Seven Total Projects	**$1,440,926**

Grand Total 13 Projects at cost of	**$4,466,237**

These projects consist of energy-conscious enhancements to the noted building heating and cooling systems, lighting system upgrades, computerized control system equipment and additional water conservation measures.

Financing:
The proposed ECMs were selected on the basis of their optimized costs, versus the energy savings potential, and is reflected within the computed simple payback periods. Additionally, ECMs with longer payback periods were selected to meet immediate capital improvement needs. The resulting energy savings program, therefore, offers the County a 9.5-year simple payback period, which is the period of time it will take for the energy savings that are realized to exceed the total project costs. Energy performance contracts with simple paybacks that are below 20-years, are considered good by performance contracting standards, whereas simple paybacks that fall below 10-years are considered as excellent. Shorter payback periods also offer the ability for the financing of costs within a reasonable term for life expectancy of the equipment being purchased, and will coincide with any new systems or equipment that is provided.

At the May 26, 2005 meeting of the Leon County Finance Advisory committee recommended that financing for the Energy Performance Contract with ESG would bid by the ESG. The County's Financial Advisor David Moore with Public Financial Management Group, and the County's Bond

Attorney Jolinda Herring will provide review of all documents. ESG will have no role in the financing aside from coordinating the bid process. The $4.7 million project cost will be financed for a term to of twelve years. The energy savings realized from the implementation of this program will pay the remainder of the debt-service for all 12 years of the borrowing term (attachment 1).

Conclusion:
At the April 26, 2005 Board Meeting, the Board directed staff to continuing working ESG with the expectation that ESG would make one more good faith effort to propose a list projects and corresponding energy savings that would bring a better value to the County's facilities and the County's five year Capital Improvement Plan. After a revised project and equipment price list was presented by ESG to County Staff, it is evident that the energy savings will cover the costs of the projects and the debt service while providing much needed capital improvements to county facilities.

Options:

1. Authorize staff to proceed with the development of an energy performance contract with ESG for the benefit of County building facilities, and to present this information to the Board for formal approval at a regular-scheduled meeting. Authorize ESG to solicit bids associated with the financing of this project.
2. Do not authorize staff to proceed with an energy performance contract or to have any further dealings with ESG on energy savings.
3. Board direction.

Recommendation:
Option #1 is contemplated in the tentative budget

Attachments:

1. April 26, 2005 Agenda Item
2. ESG's final proposed ECM selections and cash flow summary
3. Staff spreadsheet regarding recent project improvements

PA/KD/AR

Board of County Commissioners
Agenda Request 16

Date of Meeting: April 26, 2005
Date Submitted: April 20, 2005

To: Honorable Chairman and Members of the Board
From: Parwez Alam, County Administrator
Kim Dressel, Management Services Director
Subject: Approval to Cancel the May 10, 2005 Workshop on Investment-Grade Energy Audit of County Facilities

Statement of Issue:

This agenda item seeks Board approval to cancel the workshop scheduled for Tuesday, May 10, 2005, from 12:00 p.m. to 1:30 p.m. with Energy Systems Group (ESG), regarding the investment-grade energy audit of County facilities.

Background:

On December 9, 2003, Progress Energy Solutions (PES), a subsidiary of Progress Energy (formerly Florida Power Corporation) was selected by the Board as its energy savings contractor (ESCO) and placed under contract to perform an investment-grade energy audit of County facilities for a cost of $150,519 (Attachment #1). It was anticipated that the energy audit would detail the feasibility and costs of energy enhancements that may be funded through a long-term financing arrangement, according to State Statute, and made possible through the pledge of our guaranteed future reduced energy consumption costs.

- If the energy audit did not identify projects that would yield sufficient savings to offset the debt service required to pay the capital costs for the projects, then the company would absorb the audit costs.
- If the Board pursued completion of the energy savings projects identified through the audit, the cost of the audit would be rolled into the costs of the projects and retired via debt service over the prescribed project repayment period.
- There was a direct cost of the audit only if the Board did not pursue the energy savings projects (and those projects would have yielded sufficient energy savings to offset the debt service to pay the capital costs for the projects).

PES was later sold to ESG, a subsidiary of Vectron Corporation (a Midwestern electric utility). The company defaulted under the terms of its contract, which expired without timely completing a final version of the energy audit.

On September 2, 2004, the management of ESG met with staff to request authorization to complete the energy audits outside of the expired contract. ' As ESG agreed it would complete and deliver the audits at no cost to the County (Attachment #2), staff agreed to continue to participate in the energy audit process.

ESG has subsequently completed the energy audit and has delivered a set of energy audit documents to the County, which details recommended energy savings projects, their costs, and projected annual savings (largely realized through reduced energy and water consumption). The project costs do not significantly exceed anticipated savings. Therefore, staff is recommending that the County not further pursue energy savings projects through this process. It is further noted that the County has no contract with ESG, and can end this without cost.

Analysis:

This agenda item represents a long-term exploration by staff, and each of the above noted energy savings firms, into Leon County's various opportunities and alternatives pertaining to additional energy conservation measures. However, in the end, it appears that the County has already employed a number of exceedingly reliable energy savings measures on its own, such that the various opportunities and alternatives which remain appears to be very limited at best.

The Leon County Finance Advisory Committee recently reviewed proposed project results and questioned if this was the most cost effective mechanism to pursue the work. It is anticipated to take more than eight years for the anticipated savings to offset the project costs. Some of the projects were recommended based solely on the projected energy savings alone (such as replacing toilets in the jail with systems that utilize less water and changing lighting fixtures). However staff would recommend the pursuit of other projects for reasons other than potential energy savings (such as raising the Courthouse ventilation intake to the roof). These projects, however, can be delivered less expensively through normal contracting procedures and considered for funding through the budget process.

It is staff's recommendation to forego any further third-party involvement in energy savings issues, and for the County to continue to elect and self-perform its own additional energy conservation measures at reduced costs, which will maximize the available benefits to be received.

Nevertheless, if the Board opts to further explore the concept of employing additional energy conservation measures in general through the available services of a qualified energy savings company in particular, then staff recommends a 90-day postponement and re-scheduling of the Board workshop on this issue for Tuesday, September 13, 2005, from 12:00 p.m. to 1:30 p.m.

Options:

1. Cancel the workshop on Investment-Grade Energy Audit of County Facilities scheduled for May 10, 2005, from 12:00 p.m. to 1:30 p.m. and do not further pursue a project agreement with Energy Systems Group.
2. Re-schedule the Board workshop on Investment-Grade Energy Audit of County facilities for Tuesday, September 13, 2005, from 12:00 p.m. to 1:30 p.m.
3. Do not cancel the workshop on Investment-Grade Energy Audit of County Facilities.
4. Do not re-schedule the workshop on Investment-Grade Energy Audit of County Facilities.
5. Board direction.

Recommendation:

Option #1.

Attachments:

1. December 9, 2003 Agenda Item and Follow-up
2. Letter from Energy Systems Group

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LEON County Government

ESG-SE

FINAL ECM Selection, 12 year Term

	Sow	FIM #	Building or Facility	Description	Simple Payback	Energy Savings Electric	Energy Savings Gas/Other	Operational Savings Labor	Operational Savings Material	Operational Savings Other	Total Savings	Project Costs
1	x	9	Courthouse	Rooftop OA Pre-conditioner	19.54	$694	$17,967		$696		$19,357	$378,256
2		10	Courthouse	Lighting Controls								
3	x	11	Courthouse	EMS Enhancements	34.39	-$6,392	$16,950		$1,982		$12,540	$431,227
4		19	Courthouse	Water Conservation								
5	x	1	Combine CH/BOA CEPs	Composite Cooling/Heating Plant	12.48	$174,283	-$45,097		$15,723		$144,909	$1,808,209
6		2	BOA	6 flrs - Light Retrofit and Control								
7		3	BOA	2 flrs - Lighting Replacement and Control								
8		4	BOA	2 flrs - MZ AHUs to VAV			$0					
9	x	5	BOA	Controls Enhancements / OA & TB	4.93	$22,263	$5,041		$1,011		$28,315	$139,514
10		6	BOA Annex	Lighting Retrofit and Controls								
11		7	BOA Annex	DX to CHW/HW Conversion								
12		8	BOA	Water Conservation								
13		12	Leroy Collins Library	Variable Primary Flow								
14		13	Leroy Collins Library	Lighting Retrofit and Controls								
15		14	Leroy Collins Library	Variable Speed CT Fan								
16		15	Leroy Collins Library	VFD Control of AHU Fans								
17		16	Leroy Collins Library	Outside Air Ventilation Control								
18		17	Leroy Collins Library	HVAC Controls Enhancements			$0					
19		18	Leroy Collins Library	Water Conservation			$0					
20		35	Health Bldg (Main)	HVAC AHU Replacement/duct								
21		34	GEMS Bldg	HVAC AHU Replacement/duct								
22	x	32	Level II Buildings TOTAL	Lighting, Controls, et al	7.50	$23,379			$2,574		$25,953	$194,521
23	x	33	Level III Buildings TOTAL	Lighting, Controls, et al	6.25	$11,378			$390		$11,768	$73,590
24	x	20	Jail	Lighting Retrofit and Controls	5.58	$51,014	-$458		$1,795		$52,351	$292,376
25		21	Jail	Replace (1) Chiller w/ 500 HE Unit								
26		22	Jail	Use Steam Boiler for Heating HW								
27	x	23	Jail	CV to VAV in POD AHUs	3.84	$65,233	-$1,966		$1,620		$64,887	$248,948
28	x	24	Jail	Controls Enhancements	9.00	$3,252	$1,022		$717		$4,991	$44,901
29		25	Jail	Peak-KW-Savings (Cogen)								
30	x	26	Jail	Water Conservation	10.14		$56,918		$11,556		$68,474	$694,592
31	x	27	Sheriff's Admin Complex	Lighting Retrofit and Controls	4.76	$28,632	-$245		$718		$29,105	$138,613
32		28	Sheriff's Admin Complex	Variable Primary Flow								
33		29	Sheriff's Admin Complex	Controls Enhancements								
34		30	Sheriff's Admin Complex	Vice - Lighting Retrofit and Cntl								
35	x	31	Sheriff's Admin Complex	Vice - HVAC Enhancements	2.40	$2,793	$564		$207		$3,564	$8,548
36		36	Sheriff's Admin Complex	Vice - Boiler Replacement								
37	x	37	Sheriff's Admin Complex	Water Conservation	5.36		$2,398		$18		$2,416	$12,948
38												
39												
40		AL-01	All Buildings	Measurment & Verification								
41												
42												
98												
99												
100												
			Original Cost	TOTAL	9.53	$376,529	$53,094		$39,007		$468,629	$4,466,236

Leon County Government

FINAL ECM Selection, 12 year Term, 3 Years M&V

Cash Flow Analysis Summary

	Const. Period	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
PROGRAM SAVINGS														
Energy Savings	$ 57,675	$ 370,307	$ 381,416	$ 392,858	$ 404,644	$ 416,783	$ 429,287	$ 442,166	$ 455,430	$ 469,093	$ 483,166	$ 497,661	$ 512,591	$ 5,313,077
Operational Savings	$ 8,148	$ 39,007	$ 39,787	$ 40,583	$ 41,395	$ 42,222	$ 43,067	$ 43,928	$ 44,807	$ 45,703	$ 46,617	$ 47,549	$ 48,500	$ 531,314
Water Savings	$ 28,335	$ 59,316	$ 61,095	$ 62,928	$ 64,816	$ 66,760	$ 68,763	$ 70,826	$ 72,951	$ 75,139	$ 77,393	$ 79,715	$ 82,107	$ 870,143
Annual Gross Savings	$ 94,159	$ 468,629	$ 482,298	$ 496,369	$ 510,854	$ 525,766	$ 541,117	$ 556,919	$ 573,188	$ 589,935	$ 607,176	$ 624,925	$ 643,198	$ 6,714,534
Cumulative Savings	$ 94,159	$ 468,629	$ 950,927	$ 1,447,296	$ 1,958,150	$ 2,483,916	$ 3,025,033	$ 3,581,952	$ 4,155,140	$ 4,745,075	$ 5,352,252	$ 5,977,177	$ 6,620,375	
ANNUAL CONTRIBUTION														$ -
PROGRAM COSTS														
Principal & Interest	$ -	$ 486,022	$ 486,022	$ 486,022	$ 486,022	$ 486,022	$ 486,022	$ 486,022	$ 486,022	$ 486,022	$ 486,022	$ 486,022	$ 486,022	$ 5,832,269
Annual Monitoring and Verific	$ -	$ 11,000	$ 10,000	$ 10,300	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Annual Gross Costs	$ -	$ 497,022	$ 496,022	$ 496,322	$ 486,022	$ 486,022	$ 486,022	$ 486,022	$ 486,022	$ 486,022	$ 486,022	$ 486,023	$ 486,022	$ 5,863,569
Cumulative Costs		$ 497,022	$ 993,045	$ 1,489,367	$ 1,975,390	$ 2,461,412	$ 2,947,434	$ 3,433,457	$ 3,919,479	$ 4,405,502	$ 4,891,524	$ 5,377,547	$ 5,863,569	
CASH FLOW														
Annual Net Cash Flow	$ 94,159	$ (28,393)	$ (13,724)	$ 47	$ 24,832	$ 39,743	$ 55,094	$ 70,897	$ 87,166	$ 103,913	$ 121,154	$ 138,903	$ 157,175	$ 850,965
Cumulative Net Cash Flow	$ 94,159	$ 65,766	$ 52,041	$ 52,087	$ 76,919	$ 116,663	$ 171,757	$ 242,654	$ 329,819	$ 433,732	$ 554,886	$ 693,789	$ 850,965	$ 850,965

Financial Summary	
Program Cost	$ 4,466,238
Downpayment	$ -
Interim Interest	$ 108,839
Amount Financed	$ 4,575,077
Annual Program Savings	$ 468,629
Simple Payback (years)	9.5
Annual Interest Rate	4.20%
Finance Period	12
Payments per Year	12
Total Interest Payments	$ 1,257,192
Energy Escalation	3.0%
Operational Escalation	2.0%
Construction Period	9
1st Year M&V Fee	$11,000
2nd Year M&V Fee	$10,000
Annual M&V Escalation	3.0%

Attachment # 3
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Actual Energy Savings by Staff Prior to 2000